ABSTRACT

A compound of formula:

HN-Gla^1-Leu^2-Tyr^3-Glu^4-Asn^5-Val^6-Gly^7-Met^8-Tyr^9-NH
|
C(O)----------CH_2----------L----------CH_2---------CHC(O)NH_2 [SEQ ID NO: 1],

in which L is sulfur, sulfoxide, oxygen or methylene, and a compound of formula:

HN-aa^1-Leu^2-Tyr^3-aa^4-Asn^5-Val^6-Gly^7-Met^8-Tyr^9-NH
|
C(O)----------CH_2----------S----------CH_2-------CHC(O)NH_2 [SEQ ID NO: 2],

in which (i) aa^1 is Adi and aa^4 is Glu or (ii) each of aa^1 and aa^4 is Adi, L is sulfur, sulfoxide, oxygen or methylene, which compounds (and their conjugates) bind to an SH2 domain in a protein comprising an SH2 domain, are non-phosphorylated, are redox-stable *in vivo*, are characterized by an IC_{50} *in vivo* of less than about 4.0 μM with respect to the SH2 domain in Grb2, and, upon binding to the SH2 domain of Grb2, have a turn conformation. A conjugate comprising a compound as described above and a carrier agent, a composition comprising (i) a compound or a conjugate as described above and (ii) a carrier, a method of inhibiting binding of an SH2 domain in a protein comprising an SH2 domain to a target protein in an animal, wherein the SH2 domain is contacted with a target protein-binding inhibiting effective amount of a compound or a conjugate as described above, and a method of synthesizing such conjugates.